

NOTES ON THE BELYTINAE WITH DESCRIPTIONS  
OF NEW SPECIES FROM THE STATE OF  
NEW YORK (HYMENOPTERA).

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This paper contains descriptions of nine new species belonging to the genera *Aclista*, *Belyta*, and *Xenotoma*. The descriptions are based on material sent to me for identification by Mr. M. D. Leonard of Cornell University.

Genus ACLISTA Förster.

The following species included by Kieffer (*Das Tier.*, Lief. 44, 1916) are herewith, upon examination of the types, referred to *Belyta*: *californiae* Kieff., *floridana* Ashm., *missouriensis* Ashm., and *rugosopetiolata* Ashm. *Aclista conica* Ashm. belongs to *Rhyncopsilus*.

KEY TO NEARCTIC SPECIES (MALES).

1. Anterior tibiae emarginate near apex and with a sharp projection laterally .....2  
Anterior tibiae not emarginate and without projection....4
2. Third antennal joint five times as long as wide.  
*americana* Ashm.  
Third antennal joint three times as long as wide.....3
3. Second tergite not striate anteriorly.....*arcuata* Kieff.  
Second tergite striate anteriorly.....*emarginata* Kieff.
4. Petiole rugose, short and wide.....*caudata* Harr.  
Petiole not rugose, carinate or smooth.....5
5. Second abscissa of the radius absent or at the most a little longer than the marginal vein.....6  
Second abscissa of the radius at least twice as long as the marginal vein.....8
6. Scape distinctly shorter than the second and third antennal joints united .....*palustra* Fouts.  
Scape as long as or longer than the second and third antennal joints united.....7
7. Abdomen dark reddish-brown.....*nevadensis* Kieff.  
Abdomen black .....*microneura* Kieff.
8. Reddish-brown, scape and legs yellow, flagellum brown  
*insignis* Kieff.  
At least the head and thorax black.....9
9. Petiole smooth; abdomen reddish-brown; antennae dark, the three proximal joints pale yellow.....*levistylus* Kieff.  
Abdomen and antennae reddish-brown..*crassicornis* Harr.

- Petiole carinate, abdomen black or brown-black, rarely obscurely reddish-brown anteriorly.....10
10. First abscissa of radius oblique, as long as or shorter than the marginal vein.....11  
 First abscissa of radius perpendicular, shorter than the marginal vein ..... *scleroneura* Kieff.
11. First abscissa of the radius distinctly shorter than the marginal vein; petiole one and one-sixth to one and one-third times as long as wide.....12  
 First abscissa of radius as long as the marginal vein; petiole scarcely longer than wide..... *dolichoneura* Kieff.
12. Dorso-lateral carinae on petiole obsolescent, much less conspicuous than the median one.....13  
 Dorso-lateral carinae on petiole large, complete, as large as the median one ..... *excavata* Fouts.
13. Carinae at base of second tergite one-half the length of the petiole ..... *obliterata* Fouts.  
 Carinae at base of second tergite one-third the length of the petiole ..... *simulans* Fouts.

***Aclista palustra* n. sp.**

Male.—Length 2.30 mm. Width of head 1.66 times the length; head slightly wider than the thorax; scape a little longer than the third antennal joint, distinctly shorter than the second and third united; second joint oval, as wide as the scape, a little more than a third the length of the scape; third joint as wide on apical half as the scape, 3.43 times as long as wide, gradually narrowed on proximal half with the outside edge straight and with a knife-like margin; fourth joint four-fifths as long as the third, about three times as long as wide; following joints becoming gradually shorter, the thirteenth three-fifths as long as the third and a little less than three times as long as wide; last joint slightly longer than the fourth, four times as long as wide, gradually narrowed toward apex; thorax 1.61 times as long as wide, slightly higher than wide, as wide as the abdomen; marginal vein four times as long as the oblique first abscissa of the radius, about six times as long as the second abscissa of the radius (the length of a vein is the length of the inclosed chitinized tubule); cubitus indicated by a straight brownish line directed toward the basal vein; abdomen 1.22 times as long as the thorax; petiole 1.66 times as long as wide, one-third as long as the second tergite; carinae on petiole sharply indicated, straight; petiole without a median carina but with two parallel, adjacent, sub-median carinae; second tergite 3.67 times as wide as the first, 1.27 times as long as wide;

anterior tibiae not emarginate near apex and without a sharp projection laterally; black; antennae fuscous, the scape below, pedicel, and the third joint on proximal half, yellowish-brown; front and middle legs yellowish-brown, the tarsi fuscous; posterior legs somewhat darker, the trochanters and femora at extreme base, yellowish; wings brownish.

Type locality.—McLean Bogs Res., N. Y., one specimen collected July 26, 1925.

Type in Coll. Cornell University, No. 739.1.

***Aclista excavata* n. sp.**

Male.—Length 3.35 mm. Head 1.26 times as wide as long, slightly narrower than the abdomen; scape as long and as wide as the third antennal joint; second joint as wide as long, as wide as the scape; third joint 1.20 times as long as the fourth, less than four times as long as wide; following joints becoming gradually shorter and narrower toward the apex, the thirteenth half as long as the third, three times as long as wide; last joint shorter than the fourth, tapering distally, acute at apex; flagellar joints, except the last three, distinctly, though only slightly, narrowed medially; thorax 1.56 times as long as wide, slightly higher than wide, 1.10 times as wide as the abdomen; first abscissa of the radius a little shorter than the marginal vein; cubitus indicated by a short straight brownish line directed toward the basal vein; abdomen 1.33 times as long as the thorax; petiole 1.35 times as long as wide; carinae on petiole sharply indicated, straight; petiole with a median carina; second tergite 2.62 times as wide and 2.83 times as long as the petiole, 1.43 times as long as wide; anterior tibiae not emarginate near apex and without a sharp projection laterally; black; scape and legs rufous; second antennal joint, third on basal half, posterior femora above, and posterior tibiae, reddish-brown; antennae and tibiae dark brown.

Type locality.—McLean Bogs, N. Y., July 26, 1925.

Paratype localities.—Hemlock Ridge, McLean Res., N. Y., Aug. 31, 1925; West Ridge, McLean Res., N. Y., Aug. 7, 1925.

Type and paratype in Coll. Cornell University, Nos. 740.1 and 740.2. Paratype in Coll. Fouts.

Description based on three specimens collected on the dates indicated above.

***Aclista obliterated* n. sp.**

Male.—Length 2.41 mm. Width of head 1.31 times the length; head slightly narrower than the thorax; scape a little

longer than the third antennal joint, three and two-thirds times as long as the pedicel; pedicel as wide as long, as wide as the scape; third joint one and one-half times as long as wide, 1.32 times as long as the fourth, shallowly emarginate on proximal two-fifths; fourth joint as wide as the third, less than three times as long as wide; following joints becoming gradually shorter and narrower, the thirteenth two and three-fifths times as long as wide; last joint a little longer than the fourth, three and two-fifths times as long as wide, gradually narrowed toward apex; thorax 1.44 times as long as wide, as high as wide, as wide as the abdomen; marginal vein about twice as long as the oblique first abscissa of the radius; second abscissa of the radius extremely short, continued nearly to the apex of the wing as a brownish line; intercubitus indicated by a straight brownish line directed toward the basal vein; abdomen 1.49 times as long as the thorax; petiole 1.47 times as long as wide, one-third as long as the second tergite; the only carina distinctly indicated on the petiole is the median one which is more or less effaced posteriorly; second tergite 3.40 times as wide as the first, 1.29 times as long as wide; carinae at base of second tergite half as long as the petiole; anterior tibiae not emarginate near apex and without a sharp projection laterally; black; scape, pedicel, and basal half of third antennal joint, light brown; antennae otherwise dark brown; legs brown, the anterior pair somewhat lighter, wings brownish.

Type locality.—Hemlock Ridge, McLean Res., N. Y., one specimen collected August 31, 1925.

Type in Coll. Cornell University, No. 741.1

### ***Aclista simulans* n. sp.**

Male.—Length 2.65 mm. Width of head 1.33 times the length; scape a little longer than the third antennal joint, slightly less than four times as long as the pedicel; pedicel as wide as long, as wide as the scape; third joint 3.33 times as long as wide, 1.15 times as long as the fourth, shallowly emarginate on basal three-eighths; fourth joint about three times as long as wide; following joints becoming gradually shorter and narrower toward the apex; thirteenth joint three times as long as wide; last joint as long as the fourth, about four times as long as wide, gradually narrowed toward the apex; thorax 1.47 times as long as wide, as high as wide, 1.09 times as wide as the head; marginal vein 1.70 times as long as the slightly oblique first abscissa of the radius; second

abscissa of the radius punctiform as in *obliterata*; cubitus indicated by a short straight brownish line directed toward the basal vein; abdomen 1.41 times as long as the thorax, as wide as the thorax; petiole 1.33 times as long as wide, traversed by five longitudinal carinae, the median one the largest, not obliterated toward the apex; second tergite three times as long and three and one-sixth times as wide as the petiole, 1.32 times as long as wide; carinae at base of second tergite about a third as long as the petiole; anterior tibiae not emarginate near apex and without a sharp projection laterally; color as in *obliterata*.

Type locality.—McLean Bogs, N. Y., one specimen collected July 26, 1925.

Type in Coll. Cornell University, No. 742.1.

Genus BELYTA Jurine.

**Belyta rugifrons** n. sp.

Male.—Length 2.72 mm. Runs to *klagesi* Kieff. in Kieffer's key (*Das Tier.*, Lief, 44, 1916, p. 391) and differs in having the radial cell slightly more than three times as long as the marginal vein. Head 1.43 times as wide as long, slightly narrower than the thorax; upper part of frons rugose; scape three times as long as wide, slightly shorter than the two following joints united, narrowed distally; third joint four times as long as the second, three times as long as wide, arcuately emarginate on basal three-eighths, the emargination not especially deep; joints four, five, and six equal, about three times as long as wide, 1.18 times as long as joint seven; last joint as long as six, four times as long as wide, acute at apex; thorax 1.42 times as long as wide, 1.20 times as wide as the abdomen, as high as the abdomen is wide; carina on propodeum divided at its middle, not elevated anteriorly; first abscissa of radius oblique, about as long as the marginal vein; abdomen 1.44 times as long as the thorax, 2.44 times as long as wide; petiole 1.56 times as long as wide, carinate but without a median carina; second tergite 1.45 times as long as wide, nearly three times as long as the first tergite; following segments united as long as the petiole; black; scape, pedicel, and half of third antennal joint reddish-yellow; antennae otherwise fuscous; legs reddish-yellow, the hind coxae basally, and the posterior tibiae entirely, darker; wings brownish.

Type locality.—Glen Echo, Maryland (May 29, 1923); paratype locality.—Hemlock Ridge, McLean Res., N. Y. (August 19, 1925).



Paratype in Coll. Cornell University, No. 743.I.  
 Description based on two male specimens.

Genus XENOTOMA Foerster.

The following of Ashmead's species are herewith, upon examination of the types, transferred to *Xenotoma* (*Xenotoma*): *Cinetus macrodyctium*, *Cinetus ruficornis*, *Cinetus similis*, *Miota rufopleuralis*, *Pantoclis insularis*, *Pantoclis megaplasta*, *Zelotypha borealis*, *Zelotypha flavipes*, *Zelotypha fuscicornis*, and *Zelotypha scutellata*.

The male type of *Pantoclis insularis* Ashm. belongs to the genus *Belyta*. The male type of *Xenotoma mandibularis* Ashm. belongs to *Xenotoma* but does not agree specifically with the female. The male type of *Xenotoma xanthopus* Ashm. has been lost.

KEY TO NEARCTIC SPECIES OF THE SUBGENUS *Xenotoma*.

1. Males ..... 2  
 Females ..... 16
2. Radial cell not or scarcely longer than the marginal vein. . . 3  
 Radial cell at least one and one-half times as long as the marginal vein ..... 5
3. Cubitus straight; petiole one and one-half times as long as wide ..... *melanocera* Kieff.  
 Cubitus curved; petiole twice as long as wide ..... 4
4. Postmarginal vein extending past the radial cell by a little more than the latter's length; cubitus very pale.  
*coloradensis* Kieff.  
 Postmarginal vein not extending past the radial cell.  
*parvicellula* Kieff.
5. Cubitus straight except often the extreme tip ..... 6  
 Cubitus curved from the base ..... 11
6. Postmarginal vein in outer half of radial cell strongly thickened ..... *laeta* Kieff.  
 Postmarginal vein not at all thickened ..... 7
7. Legs light yellow (except hind tibiae and tarsi in *flavipes*); third antennal joint deeply emarginate on basal half ... 10  
 Legs yellowish-red or darker; third antennal joint not or only shallowly emarginate ..... 8
8. Third antennal joint shallowly emarginate ..... 9  
 Third antennal joint not emarginate, with a sharp straight edge on basal two-thirds ..... *pilosa* Fouts.
9. Scape somewhat longer than the second and third antennal joints united ..... *clinoneura* Kieff.

- Scape distinctly shorter than the second and third antennal joints united ..... *fuscicornis* Ashm.
10. Radial cell three times as long as the marginal vein.  
*kiefferi*, n. n.  
 Radial cell about two and one-fifth times as long as the marginal vein ..... *flavipes* Ashm.
11. Thorax partly reddish-brown ..... 12  
 Thorax black ..... 13
12. Scape as long as the following two joints united; radial cell twice as long as the marginal vein .. *fungicola* Crawford.  
 Scape longer than the following two joints united; radial cell two and one-half times as long as the marginal vein.  
*rufosignata* Kieff.
13. Abdomen dark reddish-brown ..... 14  
 Abdomen black; radial cell at the most three times as long as the marginal vein; veins brownish-black ..... 15
14. Petiole two and one-half times as long as wide; radial cell nearly four times as long as the marginal vein; veins yellow ..... *flavinervis* Kieff.  
 Petiole at the most one and one-half times as long as wide; radial cell at least three times as long as the marginal vein; veins brownish-black ..... *bakeri* Kieff.
15. Antennae yellow, somewhat darker distally; thirteenth joint one and one-half times as long as wide. *fuscinervis* Kieff.  
 Antennae black or brown, the two proximal joints lighter.  
*clarimontis* Kieff.
16. Radial cell not or scarcely longer than the marginal vein; body black ..... *parvicellula* Kieff.  
 Radial cell at least a half longer than the marginal vein... 17
17. Cubitus straight, except sometimes at tip ..... 18  
 Cubitus curved from the base ..... 25
18. Last joint of antenna three-fourths the length of the three preceding joints united, considerably wider than any other flagellar joint ..... *megaplasta* Ashm.  
 Last joint shorter than the two preceding joints united, not wider than the fourteenth ..... 19
19. Third antennal joint twice as long as wide ..... 20  
 Third antennal joint three or more times as long as wide. 21
20. Scape as long as the three following joints united.  
*trisolcata* Kieff.  
 Scape longer than the four following joints united.  
*palustra* Fouts.
21. Abdomen viewed laterally curved upward at the apex. . . . 22  
 Abdomen straight at apex ..... 24
22. Scape considerably shorter than the three following united ..... 23

- Scape about as long as the three following joints united.  
*insularis* Ashm.
23. Antennal joints ten to fourteen about as wide as long.  
*antennalis* Fouts.  
 Antennal joints ten to fourteen longer than wide.  
*curvicauda* Fouts.
24. Antennal joints ten to thirteen about as long as wide (last three joints lost) ..... *borealis* Ashm.  
 All flagellar joints longer than wide .. *macrodyctium* Ashm.
25. Body rufous or reddish-brown .....26  
 Body blackish or mostly blackish .....27
26. Scape as long as the five following joints united.  
*castanea* Kieff.  
 Scape as long as the three following joints united.  
*xanthopus* Ashm.
27. Scape distinctly shorter than the three following united..28  
 Scape distinctly longer than the three following joints....29
28. Scape narrowed toward apex; scutellum dark.  
*mandibularis* Ashm.  
 Scape not narrowed toward apex; scutellum yellowish-brown ..... *scutellata* Ashm.
29. Radial cell less than twice as long as the marginal vein..30  
 Radial cell two and one-half or more times as long as the marginal vein .....33
30. Eleventh antennal joint as wide as long ...*ruficornis* Ashm.  
 Eleventh joint longer than wide .....31
31. Antennal joints thirteen and fourteen as wide as long.  
*klagesi* Kieff.  
 Joints thirteen and fourteen distinctly longer than wide ..32
32. Petiole two and one-half times as long as wide.  
*similis* Ashm.  
 Petiole about twice as long as wide ... *fungicola* Crawford.
33. Radial cell three or more times as long as the marginal vein .....35  
 Radial cell about two and one-half times as long as the marginal vein .....34
34. All flagellar joints longer than wide ... *rufopleuralis* Ashm.  
 Antennal joints eight to fourteen as wide as long.  
*rufosignata* Kieff.
35. Abdomen dark brownish-red .....36  
 Abdomen black ..... *fuscinervis* Kieff.
36. Petiole two and one-half times as long as wide.  
*flavinervis* Kieff.  
 Petiole at the most one and one-half times as long as wide.  
*bakeri* Kieff.



**Xenotoma (Xenotoma) kiefferi** n. n.

*Xenotoma (Xenotoma) xanthopus* (non Ashmead, 1893) Kieffer, Ann. Soc. Sci. Brux., Vol. 33, 1909, p. 371.

*Xenotoma (Xenotoma) flavipes* Kieffer, Gen. Ins., Fasc. 107, 1910, p. 33.—Kieffer, Das Tier., Lief. 44, 1916, p. 539. Preoccupied by *Zelotypa flavipes* Ashm., Bull. 45, U. S. Nat. Mus., 1893, p. 365.

Type locality.—Pennsylvania.

**Xenotoma (Xenotoma) pilosa** n. sp.

Male.—Length 3.50 mm. Width of head one and one-half times the length; scape a little longer than the following two joints united, nearly straight, slightly narrowed distally; pedicel as wide as long; third joint four times as long as the pedicel, 1.14 times as long as the fourth joint; fourth joint four times as long as wide; following joints becoming gradually shorter and narrower; joint thirteen half as long as the scape, four times as long as wide; last joint three-fourths the length of the fourth, five times as long as wide, acute at apex; thorax distinctly narrower than the head, a little wider than the abdomen, as wide as high, 1.57 times as long as wide; radial cell twice as long as the marginal vein; first abscissa of radius oblique; second abscissa 1.60 times as long as the basal vein; metacarpa not extending past the radial cell; abdomen 1.85 times as long as wide, 1.10 times as long as the thorax; petiole a little over twice as long as wide, less than one-third as wide as the second tergite, not quite one-half the length of the second tergite, longitudinally carinate; second tergite 1.38 times as long as wide; upper part of head and thorax thickly covered with golden pubescence; hairs on rest of head, thorax, and on abdomen, silvery in color; black; antennae dark brown, the first two joints reddish-brown; legs reddish-brown, the hind tibiae medially, and the hind tarsi entirely, dark brown; wings brownish, the veins very dark.

Type locality.—Inlet Brook, McLean Res., N. Y., one specimen collected on August 31, 1925.

Type in Coll. Cornell University, No. 744.1.

**Xenotoma (Xenotoma) palustra** n. sp.

Female.—Length 2.93 mm. Width of head 1.30 times the length; scape a little shorter than the following five antennal joints together; all antennal joints subequal in width; pedicel as long as joint four, 1.43 times as long as wide; third joint 1.30 times as long as the fourth, twice as long as wide; joints

four to nine subequal; joints ten to thirteen shorter, about as wide as long; joints thirteen and fourteen slightly wider than long; last joint conical, as long as the fourth, one and one-fourth times as long as wide; thorax as wide as the head, 1.14 times as wide as the abdomen, 1.54 times as long as wide, higher than wide; radial cell about twice as long as the marginal vein, about four times as long as wide; first abscissa of radius nearly perpendicular, about two-thirds the length of the marginal vein; second abscissa of radius 1.58 times as long as the basal vein; intercubitus indicated by a faint straight brown line directed toward the discoideus; this line a little over twice as long as the first abscissa of the radius; abdomen 1.59 times as long as the thorax, 2.80 times as long as wide; first tergite twice as long as wide, one-third the width of the second tergite, carinate, without a median carina; second tergite two and one-half times as long as the first, one and one-half times as long as wide, fluted basally, the grooves about one-third the length of the petiole; median sulcus on second tergite about as long as the petiole; black; legs rufous; antennae rufous, the apical six joints darker.

Type locality.—McLean Bogs Res., N. Y., two specimens collected August 17 and 18, 1925.

Type in Coll. Cornell University, No. 745.1; paratype in Coll. Fouts.

***Xenotoma (Xenotoma) antennalis* n. sp.**

Female.—Length 2.50 mm. Head 1.70 times as wide as long, 1.13 times as wide as the thorax, 1.36 times as wide as the abdomen; scape distinctly shorter than joints three and four united, curved, not narrowed apically; pedicel as wide as long, as wide as the scape, wider than joint three, as wide as joint ten; joints three to ten equally wide; joints ten to fourteen wider; third joint three times as long as the second, 3.66 times as long as wide, 1.20 times as long as the fourth; fourth joint a little longer than the fifth, the latter longer than the sixth, three times as long as wide; sixth joint two and one-half times as long as wide, one and one-fourth times as long as the seventh, the latter longer than the eighth, twice as long as wide; eighth joint 1.66 times as long as wide, narrower than the ninth, one and one-fourth times as long as the ninth; joints nine to fourteen as wide as long; fourteenth joint as wide as the eighth, a little longer than wide; last joint not quite twice as long as wide, subacute at apex, half as long as the third; thorax one and one-third times as long as wide, as high as wide; first abscissa of radius oblique;

radial cell one and one-half times as long as the marginal vein; second abscissa of radius a little longer than the basal vein; intercubitus straight, as long as the marginal vein, directed toward the lower part of the basal vein; abdomen two and one-half times as long as wide, 1.56 times as long as the thorax; petiole twice as long as wide, a little over half as long as the second tergite, without distinct or complete carinae dorsally or laterally; second tergite 1.60 times as long as wide, 3.57 times as wide as the petiole, with several very short grooves on either side of the median sulcus; pubescence on body rather short, grayish in color; black; first two joints of antennae reddish-yellow; legs golden-yellow, the posterior tibiae and tarsi darker; wings hyaline, the veins dark brown.

Type locality.—McLean Bogs Res., N. Y., one specimen collected August 20, 1925.

Type in Coll. Cornell University, No. 746.1.

**Xenotoma (*Xenotoma*) curvicaudis** n. sp.

Female.—Length 3.04 mm. Head 1.44 times as wide as long, as wide as the thorax, 1.18 times as wide as the abdomen; scape slightly shorter than joints three and four united, scarcely curved, not narrowed apically; pedicel a little longer than wide, less than half as long as the third joint; third joint four times as long as wide, 1.20 times as long as the fourth joint; following joints becoming gradually shorter; all flagellar joints subequal in width; last joint one and one-half times as long as the penultimate, blunt at apex; thorax 1.41 times as long as wide, as high as wide; radial cell nearly three times as long as the marginal vein; second abscissa of radius 1.60 times as long as the basal vein; intercubitus straight, curved at tip, longer than the marginal vein, directed toward the lower part of the basal vein; abdomen two and one-half times as long as wide, a little more than one and one-half times as long as the thorax; petiole one and two-thirds times as long as wide, without distinct carinae except laterally; second tergite one and one-half times as long as wide, three times as wide and 2.77 times as long as the petiole, with a number of grooves basally, the longest of these grooves half as long as the petiole; color as in *antennalis* but the wings brownish.

Type locality.—The Hook, McLean Res., N. Y., two specimens collected August 19, 1925.

Type in Coll. Cornell University, No. 747.1; paratype in Coll. Fouts.